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**5 GW AND HYBRID WARFARE ITS IMPLICATIONS
AND RESPONSE OPTIONS**



ABSTRACT

The concept of Generations of Modern Warfare (GMW) was formally introduced in 1989 by United States' military scholars William Lind with Colonel Keith Nightengale (USA), Captain John F. Schmitt (USMC), Colonel Joseph W. Sutton (USA), and Lieutenant Colonel Gary I. Wilson. Since then, five generations of warfare have been defined and further explained by international academia and military thinkers across the globe. Research on global security has led to identification of another new generation of warfare which is hybrid in nature. The academia believes that "Hybrid Warfare" has shown its manifestation and is continuously evolving itself. The concept is that both 5th Generation Warfare (5GW) and Hybrid Warfare require a different perspective than what we have applied so far on the other generations and forms of warfare. No commonly accepted definition exists for both 5GW and Hybrid Warfare. Some see 5GW as a decentralized form of warfare as it is characterized by blurring lines between war and politics, combatants and civilians, being a long term and complex warfare. On the other hand Hybrid Warfare is a military strategy that blends conventional, irregular and Cyber Warfare and is product of new technologies like nanotechnology, coupled with an indirect political approach. Given the rate at which change in warfare is accelerating, it is reasonable to accept that 5GW has transformed itself to Hybrid Warfare. These two kinds of threats have multi-faceted dimensions and the security arrangements against them will have to undergo immense changes. Modern armies of the world would be required to adopt comprehensive strategies to counter both the 5GW and Hybrid Warfare.

Key Words: 5th Generation Warfare, 5GW, Hybrid Warfare, Fighting 5GW, Fighting Hybrid Threats, Hybrid Threats, Technology and Warfare, Developed Countries, Responses, Evolution in Warfare

RESEARCH METHODOLOGY

Type of Research Methodology

The research pursued in this paper is Analytical, as already available facts and information have been used and evaluated. Like all military studies, this study does not claim to address the issue in completeness but endeavors to provide one of the way forward to the policy makers. Therefore this research can be taken as an applied research.

A qualitative approach is conducted following the subjective nature of assessing behaviors and opinions of variables. The impressions and insights of the researcher are upheld in this study and analysis is thus not quantitative in nature.

Sampling Procedure

For this paper, *Non-Probability Sampling* also called *Purposive Sampling* is used. This method of sampling involves deliberate or purposive selection of particular cases of states for creating a sample which represents the population, as the study selects certain books, articles and journals by authors in the related field of study. It is also *Judgment Sampling* as the researcher's judgment is undertaken for selecting items which he considers as representative of the population or the cases in study.

Description of Instruments Used

This research is based on the data collected through secondary sources as it was not possible to collect primary data due to lack of resources. Different secondary sources have been used for data collection which include various books, magazines, discussions and lectures, internet, newspapers, articles and journals etcetra. The data is analysed through critical approach and qualitative method of discussion.

INTRODUCTION

“War never achieves its absolute because war is never an isolated act: war does not consist of a single short blow: and in war the result is never final.”

(Clausewitz, On War, 1780-1831)

Since the beginning of human history, warfare has seen constant evolution. It did not take hundreds of years from the development of the musket for 1GW to evolve. 2GW evolved and peaked in the 100 years between Waterloo and Verdun. 3GW came to maturity in less than 25 years. 4GW was implemented upon its conception in China seventy-five years ago, around the same time when 3GW was being implemented in Europe. 5GW resulted from the continuous shift of political and social loyalties to causes rather than nations. It will be marked by the increase power of smaller entities and the explosion of biotechnology. 5GW will be a *nets-and-jets* war; networks will distribute the key information, provide a source for equipment and material and constitute a field from which to recruit volunteers; the jets will provide for worldwide, inexpensive and effective dissemination of the weapons.

5GW is still ambiguous in nature. Currently, there is no commonly agreed upon definition for 5GW. It is also denoted to as Unrestricted, or Open Source Warfare. However, this form is rapidly making its advent all around. When and how 5GW started? As per the definition of Non-Contact Warfare, which states, *destroying a specific target without a human seeing it*. If this assumption is correct, then 5GW techniques started with long-range artillery and naval gunfire using rifled-barrel weapons. The 5GW has been studied since the 9/11 incident. It is defined as the use of “all means whatsoever” – means that involve the force of arms and means that do not involve the force of arms, means that involve military power and means that do not involve military power, means that entail casualties, and means that do not entail casualties – to force the enemy to serve one’s own interest. Its first identifiable manifestations occurred in the United States during the anthrax attacks of 2001.

The distinctive lines between war and peace have faded to a greater extent. Space for classical state vs state, military to military confrontation is being captured by state vs non-state actors and criminal groups. Of late the concepts of 5GW, hybrid threats and Hybrid War have come under sharp focus amongst military and security academia, world over. Pakistan since its inception has confronted multifaceted challenges however, in recent past

South Asian security environment has changed dramatically, with few key developments dominating security agendas. Therefore, without ignoring the internal fissures / fault-lines and the nature of threat to country from hostile countries, warrants a critical examination of the situation by identifying the hybrid threat confronting by Pakistan with a view to suggest a response that could enable the state to build resilience to these threats. The study endeavors to examine the challenges associated with the 5GW and Hybrid Warfare, their implications and the measures required by Pakistan to counter these types of threats. The paper shall endeavor to discuss the issue in following sequence: -

- **Part – I.** Strategic Appraisal
- **Part – II.** Evolution and Generations of Warfare
- **Part – III.** Emergence of 5GW and Understanding Hybrid Warfare
- **Part – IV.** Implications of 5GW and Hybrid Warfare for Pakistan
- **Part – V.** Conclusions and Suggested Way Forward for Pakistan

PART – I
STRATEGIC APPRAISAL

The modern world is characterized by explosion of knowledge, information and rapid advancements in almost all facets of human life. Military art and science are no exception to this ever-growing transformation and expansion. The centuries old conventional jargons and doctrines in the domain of warfare are replaced with new concepts and techniques. Non-Kinetic challenges to the states are more pronounced than Kinetic ones in today's world. Whereas, the overall power potential of nations is still determined by conventional military yardsticks, it is the *Non-Kineticism* which is more seriously explored now a days by nations and societies to advance their interests. Any evaluation or analysis of wars and conflicts will be incomplete without a context to the prevailing situation at global and regional level. Therefore, a strategic appraisal is imperative to further the research on the subject of 5GW and Hybrid Warfare.

Global Environment. World is transiting from *unipolartiy* to *multipolarity* which is likely to give rise to sub-conventional warfare, lead from behind proxies and hybrid conflicts; subjection of Pakistan to these threats will also increase in future.

- **Morphed Threat Dynamics.** Transiting world order and prevalent uncertainties with reduced credibility of superpower assurances has also morphed the threat dynamics, which necessitates evolving of prudent response options.
- **US Rebalance to Asia.** US rebalance to Asia and Sino Russian alliance creates dilemma for Pakistan to balance out her relations with these states and also radiates consequential security challenges for Pakistan.
- **Expanding Cyberspace.** Expanding cyberspace provides fertile ground for battle of narratives and also acts as enabler for hybrid threats; thus complicating security concerns and adding to the challenge of perception management.
- **Climate Change.** Global warming and changing climate is increasingly affecting the national security paradigm of states. Threat of water wars further complicates the situation and makes human security a challenge for states like Pakistan.

Regional Environment

- **Instability in Afghanistan.** Instability in Afghanistan poses a serious security challenge for Pakistan, necessitating a comprehensive response.
- **Chino-Russian Alignment.** Russia and China are gradually assuming the lead role in solving the Afghan issue with auspices of Pakistan.
- **Middle East Crisis.** Turmoil in Middle East accentuated by competing interests of world powers will continue to pose security challenges, having domestic consequences for Pakistan.
- **Iran – West Tension.** Iran – West tension has raised level of concerned in the region; recent announcement of US regarding imposing sanctions on Iran will have negative implications.
- **Border Disputes.** Pakistan and India (both Nuclear powers) are not enjoying friendly relations since independence, due to different territorial disputes including core issue of Kashmir.

Domestic Environment. Certain notable factors from Pakistan's domestic environment are:-

- Though operation *Zarb-e-Azb* and National Action Plan have met success yet there is a need to take the operation to its logical conclusion.
- CPEC, though a game changer, faces serious threats from external forces. There is a need to harness the CPEC and take requisite measures for its security.
- The country is slowly and gradually moving towards strengthening of institutions. However, this slow pace is not at par with the growing threats to internal and external security.
- The myth of isolating Pakistan is fading away with increasing interests of various countries in joining CPEC and hosting of ECO meeting.
- Robust conventional and nuclear capability together with stable political and economic conditions have thwarted adversary's desire to attack Pakistan overtly.
- **Prosperity Assessment of Pakistan.** Figure 1.1 below shows the prosperity of Pakistan assessed in various domains.

Figure 1.1: Prosperity Assessment of Pakistan

Prosperity Criteria	Prosperous	Borderline	Failing	Pakistan
Governance	Good	Average	Poor	Average
Rule of Law	Good	Average	Absent	Average
Economic Growth	Good	Average	Negative	Average
Democracy	Well Established	Just Functional	Missing	Just Functional
State Security	Good	Weak	No	Weak
Military	Good	Average	Poor	Good
National Cohesion	Strong	Divisive	Poor	Divisive
Health	Good	Average	Poor	Average
Population	Well Managed	Poorly Managed	Exploding	Poorly Managed
Personnel Freedom	Available	Contested	Poor to Absent	Available
National Resources	Well Managed	Poorly Managed	Not in state control	Poorly Managed
Smart Power	Effectively Projected	Hardly Projected	Missing	Hardly Projected

Source: Author assessment

- In order to develop a better context to the research, there is a need to review our strengths and weaknesses or existing fault lines.
 - **Strengths / Opportunities**
 - Geo-strategic location and relevance for regional/global agendas.
 - An awakening civil society.
 - An independent and assertive judiciary.
 - An essentially working democratic structure with optimism in its functionality.
 - An elaborate security apparatus with credible conventional and unconventional deterrence capabilities.
 - A well-developed infrastructure and an industrious human resource.

- Economic potential and abundant natural resources awaiting realization.
- **Fault Lines**
 - Countrywide will and cohesion
 - Declining economy and its negative impact on masses.
 - Overly personalized political discourse.
 - Radicalization / extremism and sub-nationalism.
 - Religious, social, economic and ethnic divide and deteriorating human security situation.
 - Absence of a well-defined National Security Management System.

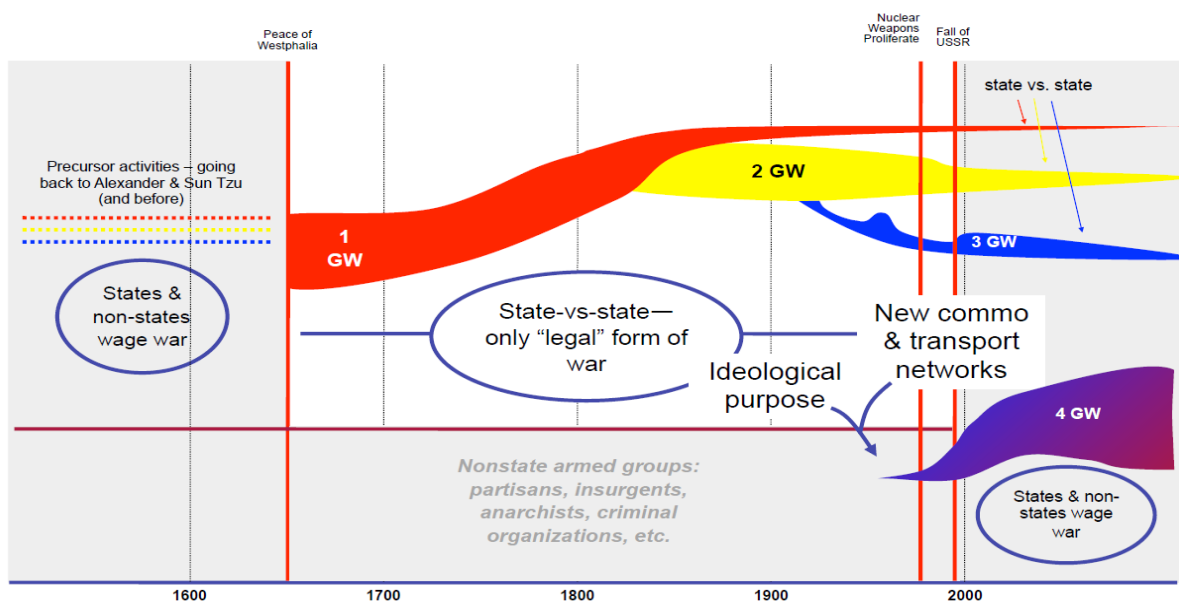
PART – II

EVOLUTION OF GENERATIONS OF WARFARE

Genesis of Warfare. Thinking about future of war requires careful reflection on its past. The modern fascination with cutting edge technology and its undeniable impact of war often obscures our view of warfare’s other dimensions. Historians have widely noticed the social, political and economic factors in shaping evolution of conflict. Cultural and intellectual changes have played a powerful role as thinking about the future have influenced the way we speculate about war so much that we often use them.

Defining Generations of Warfare. If we look into historical prospective, we observe that the generational evolution in warfare was so abrupt in one hand like advent of muskets or nuclear weapons and so smooth on the other hand like terrorism. Thus, global academia also differs widely in defining border lines of these generational shifts. Above all some elements of one may carry over to other generation as explained in Figure 2.1 below.

Figure - 2.1: Four Generations of Warfare



Source: Author assessment

- **First Generation.** First generation warfare reflects tactics of the era of the smoothbore musket, the tactics of line and column. These tactics were

developed partially in response to technological factors the line maximized firepower, rigid drill was necessary to generate a high rate of fire, etc. and partially in response to social conditions and ideas, e.g., the columns of the French revolutionary armies reflected both the élan of the revolution and the low training levels of conscripted troops. Although rendered obsolete with the replacement of the smoothbore by the rifled musket, vestiges of first generation tactics survive today, especially in a frequently encountered desire for linearity on the battlefield.

- **Second Generation.** Second generation warfare was a response to the rifled musket, breechloaders, barbed wire, the machine gun, and indirect fire. Tactics were based on fire and movement, and they remained essentially linear. The defense still attempted to prevent all penetrations, and in the attack a laterally dispersed line advanced by rushes in small groups. Perhaps the principal change from first generation tactics was heavy reliance on indirect fire; second generation tactics were summed up in the French maxim, "the artillery conquers, the infantry occupies." Massed firepower replaced massed manpower. While ideas played a role in the development of second generation tactics (particularly the idea of lateral dispersion), technology was the principal driver of change.
- **Third Generation.** Third generation warfare was also a response to the increase in battlefield firepower. However, the driving force was primarily ideas. Aware they could not prevail in a contest of materiel because of their weaker industrial base in World War I, the Germans developed radically new tactics. Based on maneuver rather than attrition, third generation tactics were the first truly nonlinear tactics. The attack relied on infiltration to bypass and collapse the enemy's combat forces rather than seeking to close with and destroy them. The defense was in depth and often invited penetration, which set the enemy up for a counterattack. While the basic concepts of third generation tactics were in place by the end of 1918, the addition of a new technological element-tanks-brought about a major shift at the operational level in World War II. That shift was blitzkrieg.
- **Fourth Generation.** This is perhaps the shortest era and can be easily defined as transitional in nature. Where states took on non-state actors or vice

versa. A non-national or transnational base, such as an ideology or religion; highly sophisticated psychological warfare, especially through manipulation of the media, are key characteristics of this generation. In-fact, as W. S. Lind and Colonel Nightingale predicted, it is idea of poor and low-tech nations / groups fighting against technology of westernized and developed nations. Fourth generation warfare uses all available networks political, economic, social, and military to convince the enemy's political decision makers that their strategic goals are either unachievable or too costly for the perceived benefit. It is an evolved form of insurgency.

While concluding above discussion one can safely say that first three generations were technology or its anti-dote driven state VS state affairs. The fourth generation saw active participation of non-state actors and other less lethal means of combat. However, as this threatened civilian targets while bypassing military it has urged for more rapid response and thus transform itself quickly.

Transition to Next Generation. Current events suggest that there are a number of ongoing major developments in 4GW: a strategic shift, an organizational shift, and a shift in type of participants.

- **Strategic Shift.** Strategically, insurgent campaigns have shifted from military campaigns supported by information operations to strategic communications campaigns supported by guerrilla and terrorist operations.
- **Organizational Shift.** The emergence of civil war as a part of insurgency is based on the major organizational shift that has occurred since Mao formulated his concept. It reflects the continuous, worldwide shift from hierarchical to networked organizations. While the Chinese and Vietnamese insurgencies were hierarchies that reflected both the social organizations of those societies and the dominant business and military organizations of the time, recent insurgencies have been networked coalitions of the willing.
- **Shift in Participants.** Even within a single country, the highly diverse armed groups that make up a modern insurgency have widely differing motivations. These motivations can be reactionary, opportunistic and ideological as well.

PART – III

EMERGENCE OF 5GW AND UNDERSTANDING HYBRID WARFARE

“The first rule of unrestricted warfare is that there are no rules, with nothing forbidden.”

**(Qiao Liang and Wang Xiangsui:
Unrestricted Warfare-1999)**

Emergence of 5GW

Definitions of 5GW. The concept of 5GW has achieved pre-eminence more than a decade before as the next form warfare after 4GW, however it remains diverse basing upon the viewpoints of academia. Few of the definitions from different sources have been quoted as under:-

- **Unrestricted Warfare: Book by Chinese Colonels.** *In their book, titled Unrestricted Warfare, published in 1999, Col Liang and Xiangsui of Peoples Liberation Army, China define future war as follows:-*
“Warfare that uses all means whatsoever - means that involve force or arms and means that do not involve force or arms; means that involve mil power and means that do not involve mil power; means that entail casualties and means that do not entail casualties to force an enemy to serve one’s own interests”¹.
- **5GW Educational Institute.** Established in 2010 the institute provides a platform to carryout advance studies of emerging threats. It defines 5GW as :-
“5GW is an extension of Asymmetrical and Insurgent Warfare, whereby the enemy uses all means, conventional and unconventional tactics. It includes political, religious and social causes; incorporates information operations campaigns (internet and 24 hours news cycle) can be conducted by organization or un-organized groups; may be nation state led or non-nation state led to disrupt and defeat opponents in order to achieve their will”².

¹ Qiao Liang and Wang Xiangsui, Unrestricted Warfare. (Beijing: PLA Literature and Arts Pub House, Feb 1999)

² <https://web.archive.org/web/20101107010719/http://www.5gwinsitute.com/webfiles/whatis>

- **Securitybrief.com.** According to the former deputy assistant secretary of US Defense, Homeland and Americans, Doctor Steven Bucci defines 5GW in his article as under:-

“We no longer have the luxury of a linear, series type engagement. We now require an integrated simultaneous approach that has soldiers who can do development and intelligence gathering, who know the psycho-social dynamics of the people among whom they live and move. It requires information operations that range from paper leaflets to the most sophisticated cyber campaigns, and it must be completely immersed in the overall policy thrusts of the nation’s leaders. This new integrated concept is called Fifth Generation Warfare (5GW).³”

- **Military Review.** US Marine Colonel (retired) T.X. Hammes states in an article published by Military Review in May-June 2007:-

“5GW will result from the continued shifts of political and social loyalties to causes rather than nations. It will be marked by the increasing power of smaller and smaller entities and the explosion of biotechnology. 5GW will truly be a nets and jets war: networks will distribute the key information, provide a source for the necessary equipment and material, and constitute a field from which to recruit volunteers; jets will provide worldwide, inexpensive, effective dissemination of the weapons.”

- **Handbook of 5GW.** Daniel H. Abbot while compiling a book on 5GW quotes a comprehensive definition on 5GW as following:-

“5GW is the secret deliberative manipulation of actors, networks, institutions, states or any 0GW / 1GW / 2GW / 3GW / 4GW forces to achieve a goal or set of goals across a combination of socio, economic and political domains while attempting to avoid or minimize the retaliatory offensive or defensive actions/reactions of 0GW / 1GW / 2GW / 3GW / 4GW powered actors, networks, institutions and/or states”⁴.

Theory of 5GW. Donald J Reed states that “The development of war has been evolutionary whereas its impact on conventional notions of war is revolutionary and is

³ Securitydebrief.com/2010/09/29/fifth-generation-warfare-a-growing-concept/.

⁴ <https://purpleslog.wordpress.com/2009/07/25/5gw-operation-notes-who-what-where-when-why-how/> and quoted in Handbook of 5GW, Daniel H Abbot, p.47

increasing at an exponential rate”.⁵ Anthrax and Ricin attacks on Capitol Hill during 2001, may be early examples of 5GW⁶. Both sets of attacks require specialized knowledge, including attacks upon federal government offices and facilities, succeeded in disrupting governmental processes and created widespread fear in the public⁷. With these defining contours of 5GW we find Colonel Hammes pointing out that, “5GW will simply be an even further evolved form of insurgency, one that is vulnerable to military defeat.”⁸ Military scholars and thinkers have identified four basic elements that form the basis for shaping the future evolution of war. These essential elements⁹ are:

- New domains of conflict.
- Changing nature of adversaries.
- Changing nature of objectives.
- Changing nature of force.

Prior to and in the modern era of war these elements of war generally remained as “Constants”, never to be questioned. However, in the postmodern era of war, developments in the fields of technology, politics, economy and social organizations have been phenomenal. Globalization has resulted in synergistic integration of IT with all other concurrent and emerging technologies triggering a boost in their development trajectory. As a result, the war has been pushed beyond the purely military realm by transforming its basic elements, necessitating a review of their understanding.¹⁰ The transition has been explained as per the 3D model of generational dev of warfare as under:-

⁵ Donald Reed, “Beyond the war on terror: into fifth generation of war and conflict, “studies in conflict and terrorism, August 2008.

⁶ Thomas Hammes, *The Slings and The Stone - On War in the 21st Century*. P.278

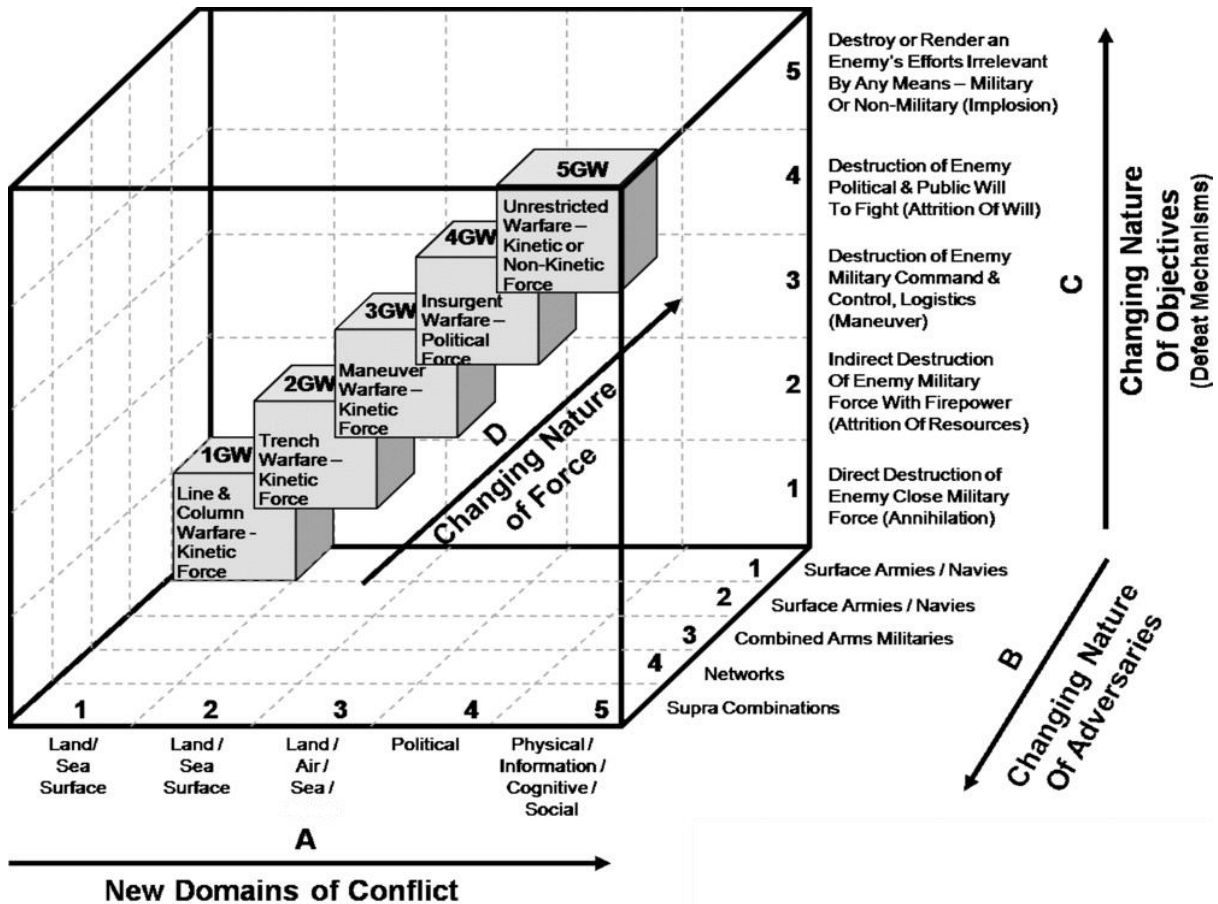
⁷ William S Lind, Col Keith Nightingale, *The Changing Face of War- Into the Fourth Generation*. (Marine Corps Gazette Oct 1989), P.184. [aval online] http://www.defense-and-society.org/def_death_spiral/5_evolution.html

⁸ http://www.au.af.mil/au/awc/awcgate/milreview/hammes-4gw_and-5th.pdf

⁹ Ibid.

¹⁰ Security.debrief.com/2010/09/29/fifth-generation-warfare-a-growing-concept/.

Figure 2.2: 3D Model- Generational Development of Warfare



Source: - Security debrief.com/2010/09/29/fifth-generation-warfare-a-growing-concept/.

- New Domains of Conflict.** Referring to “Axis A” of Figure 2.2 we can see as 4GW took the warfare beyond the physical 3D Battlefield into political domain, whereas 5GW transcended 4GW by moving the conflict further into the information, cognitive and social domains beside the physical and political arenas. Thus we see that expansion of domains of war make it possible for the concept of battlefields to break itself from physical plane by crossing over geopolitical and political boundaries and become omnipresent. Liang and Xiangsu were asked about the location of the battle field and they said that it’s everywhere.¹¹ Fifth generation warfare transcends fourth generation warfare by expanding the domains of conflict even further to include the physical

¹¹ Qiao Liang and Wang Xiangsui, Unrested Warfare. (Beijing: PLA Literature and Arts Pub House, Feb 1999)

(including land, air, and sea), information (including cyber), cognitive, and social (including political) domains¹².

- **Physical Domain**. The traditional domain of warfare where a force is moved through time and space. It spans the traditional land, sea, air, and space domains where military forces execute operations, and where most conventional warfare is conducted.
- **Information Domain**. The domain where information is created, manipulated, and shared. It spans the cyber domain.
- **Cognitive Domain**. The domain where intent, doctrine, tactics, techniques, and procedures reside. It is the domain where decisive concepts emerge.
- **Social Domain**. Comprises the necessary elements of any human enterprise. It is where humans interact, exchange information, form shared awareness and understandings, and make collaborative decisions. It is also the domain of culture, religion, values, attitudes, and beliefs, and where political decisions related to the “will of the community” are made.
- **Changing Nature of Adversaries**. Referring to “Axis B” of Figure 2.2 as discussed above, 5GW expands battlefield beyond the domains of 3GW and 4GW and makes it omnipresent. “It empowers an entity with the economic and technical means, and motivated by self-interest, with the ability to wage war”.¹³ States no longer enjoy total predominance over the province of war as it cannot be influenced and affected equally by the non-state actors, for example; super-empowered individuals, groups, gangs, ethnic or religious interests groups, social and political networks which have the potential to form extremely powerful combinations, generally referred to as “supra-combinations”.¹⁴
- **Changing Nature of Objectives**. Referring to “Axis C” of Figure 2.2 one may observe that objectives have also transformed through successive

¹² Department of Defense, Office of Force Transformation, *Implementation of Network-Centric Warfare*, p. 20. The concept of Information Age domains of war is taken from this source. Available at http://www.oft.osd.mil/library/library_files/document_387_NCW_Book_LowRes.pdf

¹³ Donald Reed, “Beyond the war on terror: into fifth generation of war and conflict,” studies in conflict and terrorism, August 2008.

¹⁴ Lt Col M Amir Khan, “*The Fifth Generation Warfare*”. Pakistan Army green book 2015, p 161

generation of war. This can be described by relating the evolution of objectives with corresponding defeat mechanisms. “A defeat mechanism is that singular measure, not necessarily the type of force or the type of adversary, which when directed against an opponent, guarantees success”.¹⁵ For understanding defeat mechanism a useful frame of reference can be Wass de Czege’s notion of three operational defeat mechanisms of attrition; dislocation, and disintegration. This notion can be extended to include annihilation, attrition of resources, maneuver, attrition of will, and implosion as defeat mechanism corresponding to the five generations of war.¹⁶ Expanded domains of war and their ability to form supra-combinations 5GW practitioners remain vulnerable to military defeat through use of implosion or the inward collapse of their organizations by inducing inertia, as a defeat mechanism. “By viewing networks and supra-combinations as processes rather than entities, it becomes possible to attack their sub processes including leadership development; alliance building; public and ideological outreach; acquisition of funding, material, shelter and support; recruitment; organization of efforts; indoctrination and training of personnel; planning and target; movement and operations; communication and exploitation of results.”¹⁷

- **Changing Nature of Force.** Referring to “Axis D” of Figure 2.2 it is evident that 4GW removes COGs from the physical domains of the battlefield by transforming them from military to political. In 5GW COGs are not only removed from physical Battlefield, but may be dissipated to limit where they become non recognizable or appear to be non-existent, particularly in the case of networked supra –combinations. Therefore, “Force as a concept” expands tremendously to include any and every means, kinetic or non- kinetic, military or non-military and when skillfully applied in different combinations can successfully defeat a military adversary.

¹⁵ Excerpts from Department of the Army, Field Manual 101-5-1, *Operational Terms and Graphics(1997)*,pp. 1-47. Available at Georgetown.edu/students/organizations/rotc/resources/101-5-1.pdf.

¹⁶ Excerpts from Major Douglas J. DeLancey’s, “Adopting the Brig (Retd) Huba Wass de Czege Model of defeat mechanisms based on historical evidence and current need,” School of Mil studies, US C&GSC, Fort Leavenworth, Kansas,p.20 Available at atstinet.dtic.mil/oai/oai?

¹⁷ Donald j. Reed, “On Killing al-Zarqawi-Does United States Policy know its tool in the war on Terror?” Homeland Security Affairs Journal (Jul 2006),p.1 Available at thsaj.org/?article=2.2.2.

Understanding the Hybrid Warfare

“More and more, modern warfare will be about people sitting in bunkers in front of computer screens, whether remotely piloted aircraft or cyber weapons”¹⁸

(Philip Hammond

MP and Ex Defence Secretary, UK, 1955 - Present)

Definition.¹⁹ The term hybrid threat was first coined by William Nemeth from US Army in 2002. Ever since many definitions of this phenomenon have been put forth by various theorists. One of the most comprehensive definition has been proffered by Frank G Hoffman which reads:

“Simultaneous employment of tailored mix of conventional weapons, irregular tactics, terrorism, and criminal behavior in the same time and battle-space to obtain political objectives”.

Conceptual Understanding of Hybrid Warfare. In order to dwell upon the concept of hybrid warfare, it is important to discuss the salient aspects first, which are given below:

- **Salient Aspects.** Hybrid warfare is often explained with the following aspects:
 - **Characteristics of Adversaries.**²⁰ A hybrid adversary can be state or non-state. For example, in the Israel–Hezbollah War and the Syrian Civil War the main adversaries are non-state entities within the state system. These non-state actors can act as proxies for countries but have independent agendas as well. Russian involvement in Ukraine can be described as a traditional state actor waging a hybrid war (in addition to using a local hybrid proxy).
 - **Methods and Tactics of Adversaries.** Methods and tactics include conventional capabilities, irregular tactics, irregular formations, terrorist acts, indiscriminate violence, and criminal activities. These

¹⁸ https://www.brainyquote.com/quotes/authors/p/philip_hammond.html (during his interview with Daily Mail, UK as Defence Secretary UK, 29 September 2013)

¹⁹ https://www.icds.ee/fileadmin/media/icds.ee/failid/Eve_Hunter__Piret_Pernik_-_Challenges_of_Hybrid_Warfare.pdf

²⁰ Hybrid Warfare, fighting complex opponents from the Ancient World to the Present. Edited by Williamson Murray and Peter R Mansoor.

methods are used simultaneously across the spectrum of conflict with a unified strategy. A current example is the Islamic State's transnational aspirations, blended tactics, structured formations, and cruel use of terror as part of their arsenal.

- **Flexibility and Adaptability.**²¹ A hybrid adversary is flexible and adapts quickly. For example, the Islamic State's response to the U.S aerial bombing campaign was to quickly reduce the use of checkpoints, large convoys, and cell phones. IS militants are also dispersed among the civilian population. Civilian collateral damage from airstrikes can be used as an effective recruiting tool.
- **Use of Advanced Weapons and Technology.** A hybrid adversary uses advanced weapons systems and other disruptive technologies. In 2006, Hezbollah was armed with high-tech weaponry, such as precision guided missiles, that nation-states typically use. The organization also used aerial drones to gather intelligence, communicated with encrypted cell phones and watched Israeli troop movements with thermal night-vision equipment.
- **Battlefields.** A hybrid war takes place on three distinct battlefields: the conventional battlefield, the indigenous population of the conflict zone, and the international community.
- **Phases of Hybrid Warfare.**²² The analysis reveals that hybrid warfare is manifested in four distinct phases, which are as under:-
 - **Phase - 1.** In phase 1 the aggressor uses subversive activities to destabilize the target state and create a response dilemma. These activities are mainly targeted to attack the public morale and the will to resist the intervention.
 - **Phase - 2.** In this phase the target state is subjected to proxy warfare which has a deep destabilizing effect. For example, in the Middle East, proxy wars between Saudi Arabia and Iran and

²¹ ibid

²² ibid

between Israel and Palestine have devastated the region. These conflicts have resulted in the Syrian Civil War, rise of ISIL and the current civil war in Yemen.

- **Phase - 3.** The aggressor uses coercion in this phase to substitute his will to the target's. Coercion can take many forms but the prominent ones are physical and physiological. In physical coercion, target state is subjected to use or threat of use of military forces, whereas diplomatic isolation is the best form of physiological coercion.
- **Phase - 4.** After having successfully completed the initial phases, the aggressor openly uses conventional forces against the target to achieve the desired objective.

Difference between 5GW and Hybrid Warfare. Although a clear demarcation with regards to difference between these two types of warfare does not exist, but yet the details contained in ensuing paragraphs will help in understanding the difference:-

- **5GW**
 - It is primarily evolved from previous four generations of warfare.
 - Major components include information and cyber threats.
 - This type of warfare can be waged by states/ non-state actors.
 - It is a blend of kinetic and non-kinetic warfare.
 - 5GW is mainly waged in social and cognitive domain.
 - The proponents of 5GW avoid conventional military confrontation.
 - 5GW aims at diverse objectives to include: small gains through hacking, medium gains through terrorist incidents and may aim at strategic gains like regime change.
- **Hybrid Warfare**
 - Hybrid warfare is a mixture of first three generations of warfare with either fourth or fifth generation warfare.
 - Major components of Hybrid Warfare include kinetic operations along with non-kinetic operations.
 - This form of warfare can only be waged by a state capable of launching conventional war onto the adversary.

- Oppressor state may employ non-state actors as tools to fulfill the objective.
- It is predominantly kinetic form of warfare.
- Hybrid warfare is waged primarily in physical and conventional/ sub conventional domain.
- Hybrid warfare seeks conventional military confrontation as the last decisive option.
- It mainly aims at regime change/ overpowering target state.

PART – IV

PREVAILING THREAT OF 5GW / HYBRID WARFARE TO PAKISTAN

“War never achieves its absolute nature because war is never an isolated act; war does not consist of a single short blow; and in war the result is never final”

(Clausewitz, On War, 1780-1831)

The threat matrix of Pakistan is characterized by an amorphous nature which is manifested through a flexible inter and intra network, enabled by modern technologies having internal and external linkages in varying domains. We face many external threats, whereas, on internal front, we face host of challengers with varying objectives, ranging from political anarchy to separatist demands. External forces can synchronize with internal players, to pose a hybrid threat. External and internal threats if not curtailed can merge to achieve short term goals and then can go to create situations leading to our regression on core issues.

Pakistan is currently facing major threats both on external and internal fronts i.e. Non-State and State Actors. The same shall be discussed in succeeding paragraphs.

Non-State Actors. Unlike the 4GW or the insurgency warfare (e.g. Vietnam, Afghanistan) the non-state actors are no longer mere proxies of a country but are the prime threat to its existence. In the 5GW the armed groups or networks neither fight in the name of the state nor are under its control.²³ The specific examples of non-state actors in Pakistan include following.

- **TTP.** *Tehrik Taliban Pakistan* shares the anti US agenda as well as a sectarian agenda to operate within Pakistan. It was formed after the NATO operations in Afghanistan post 9/11. As a follow-up of US intervention in Afghanistan, a section of radical elements within Pakistan started a movement to support the Afghani Taliban. In December 2007, the existence of the TTP was officially announced by merging 13 groups under the leadership of Bait Ullah Mehsud. The sole objective of the TTP meeting was to unite against

²³ Sattar, Babar. "Fifth-generation War." The News International. Accessed November 10, 2016. <https://www.thenews.com.pk/print/88126-fifth-generation-war>.

NATO/ American forces in Afghanistan and to wage war against Pakistani forces. The outfit was banned in Pakistan on August 25, 2008. On July 29, 2011, the United Nations Security Council (UNSC) put the TTP on its international anti-terrorism sanctions.

- **ISIS**. The Islamic State of Iraq and the Levant (ISIL) is also known as the Islamic State of Iraq and Syria (ISIS) and its acronym Daesh. It is a Salafi jihadist militant group that follows a fundamentalist doctrine. The ISIL originated as Jama'at al-Tawhid wal-Jihad in 1999, which pledged allegiance to al-Qaeda and participated in the Iraqi insurgency following the 2003 invasion of Iraq by Western forces. The group first proclaimed itself a worldwide caliphate and thus religious, political and military authority over all Muslims worldwide.²⁴ In Pakistan the exact extent of ISIS's threat is unknown, but few recent examples indicates its some presence in the country.
- **Sectarian Organizations**. Since the time of its inception Pakistan has been under a threat of sectarian conflicts. The main contenders are the majority Sunnis almost 80 percent and the Shias forming one fifth of the population. The ill-fated aspect of this encounter is that all the involved, do violence with the claim of noble service to their common religion, Islam. This had resulted in killings of intellectuals, scholars, and innocent worshipers across the country.²⁵

State Actors. Hybrid threat waged by a state against another state has four strands i.e. political subversion, proxies, coercive deterrence and intervention.

- **Political Subversion**. Political subversion of Pakistan being carried out in mainly five domains as under: -
 - **Diplomatic**. Hostile countries have gone on all out diplomatic offensive to subvert Pakistan. Themes which are being propagated

²⁴"Islamic_State_of_Iraq_and_the_Levant." Wikipedia. Accessed November 11, 2016.
https://www.wikiwand.com/en/Islamic_State_of_Iraq_and_the_Levant.

²⁵ Shah, Mohammad Nadeem. "South Asian Studies a Research Journal of South Asian Studies Vol. 29, No.2, July - December 2014, Pp. 441-459." South Asian Studies a Research Journal of South Asian Studies, July 2, 2014, 441-59.

include portraying Pakistan as Hub of Terrorism, Pakistan standing isolated and Pakistan is supporting insurgencies in other countries.

- **Economic**
 - **CPEC**. CPEC has been termed as game changer for Pakistan's economy. All out efforts are in open to subvert this corridor of economic prosperity by spreading false information regarding its route and trust deficit between provinces.
 - **Karachi**. Karachi is the hub of Pakistan economy and our 65 % revenue is generated in Karachi. Presence of Armed wings in political parties, life threats to industrialist and extortion in Karachi is threat to country.
- **Military**
 - A nefarious design to create a wedge between Armed forces and government is being run by anti-state actors.
 - Our defence forces are maintaining near permanent state of readiness (alert). The three services remain under constant threat of terror attacks on their administrative setups, causing triple stretch and fatigue.
 - Militaries around the world fight and defend territorial integrity of a country however seldom their battlefield becomes their own home ground. Fighting within own population does bring its own risks and vulnerabilities.
- **Nuclear Assets**. Narratives against our nuclear asset are:-
 - Efforts to project a theme that a non-nuclear Pakistan will be more peaceful, economically viable and in harmony with the neighbours.
 - Pakistan is projected as the centre of proliferation despite stringent measures on Pakistan's part.
 - Despite a viable and a strong nuclear security system, Pakistan is still singled out for security concerns.

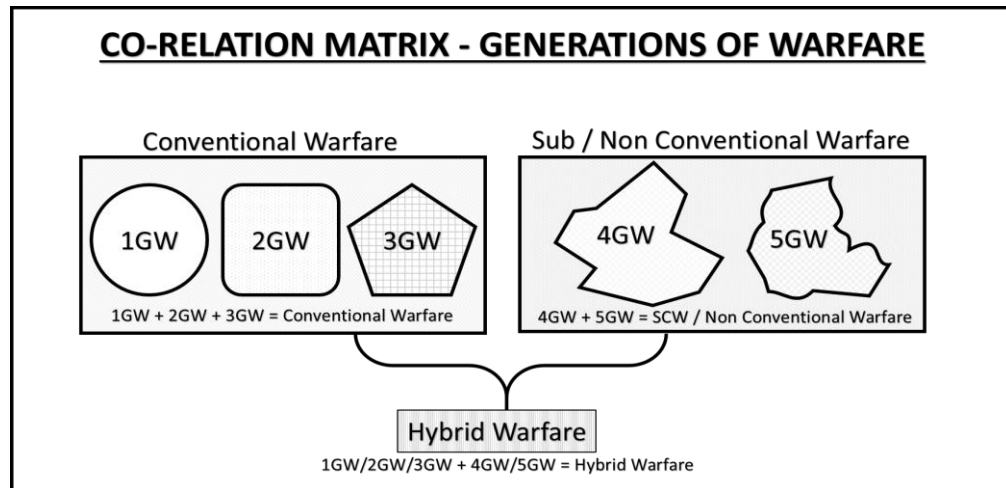
- **Psychological Subversion.** Psychological subversion is being done through demoralization and destabilization.
- **Proxy Warfare (Sanctum).** Proxy actions can be grouped into three interrelated categories as under: -
 - **Establishing Front Groups.** Front groups have been created and various religious organization have also used the humanitarian cover to further their agendas.
 - **Infiltrating the Institutions of the State.** It has four stages namely gaining information, spreading rumours, corruption and talent spots to have their agents in major organizations.

PART – V

CONCLUSIONS AND SUGGESTED WAY FORWARD

- **Conclusions.** Warfare has never been uniform ever since the beginning of mankind. Ways and means of its conduct have been evolved through a *trial and error process* and will continue to do so. The explosion of social media and cyber space, effectiveness of anti-state propaganda, grievances of ethnic and religious minorities, sophisticated means of operations, de-centralized and loose command and control structure, poverty, lack of growth opportunities in life, absence of good educational facilities, ignorance about the religion, hate speech, intolerance towards others' viewpoints are some of the factors that provide breeding ground for 5th Generation and Hybrid warfare.
- In this regard, following pertinent conclusions can be drawn from the research:-
 - **Generational Model of Warfare.** Dividing warfare in various generations is probably the most convenient way to understand its evolution. The same model provides a logical explanation to most of the wars of past and present. According to this methodology, first four generations of warfare can be labeled as:
 - 1GW - War of Line and Column
 - 2GW - Trench Warfare
 - 3GW - Maneuver Warfare
 - 4GW - Irregular Warfare
 - **4GW vs 5GW.** Difference between 4GW and 5GW is of *Motives, Technology and Empowered Individuals.*
 - **Hybrid Warfare.** This form of warfare is a combination of conventional and un-conventional warfare (1GW, 2GW and 3GW combined with 4GW and / or 5GW). While there are overlapping definitions causing duplicity, twist of terminologies and confusion, hybrid threats and warfare is real. The correlation of various generations of warfare is explained by **Figure 4.1** below.

Figure 4.1: Co-relation of Generations of Warfare



Source: Author

- **Conclusions Relevant to 5GW**
 - Attacks in cyber domain can disable official websites and networks, disrupt or disable essential services, steal or alter classified data and cripple financial systems & electricity grids, among other possibilities.
 - 5GW is a kinetic application tool of Smart Power which, while remaining under full blown military / kinetic applications, works to convince enemy's political decision makers that their strategic goals are either unachievable or too costly for the perceived benefits.
 - *HAARP Theory* proposes tampering of ionosphere & geo-physical domain for purposeful military and civilian application. Visible signs of its manifestation exist in terms of weather and geo-physical manipulations.
 - *Mind Control Sciences Theory* revolves around making a deliberate attempt to manage public's perception on a subject through sensitization. Although in its early stages of development, it is a potent threat for the future.
 - Extremely Low Frequency (ELF) Weapons use radio waves as a weapon to create incapacity and disruption without resorting to destruction.

- ‘Directed Energy’ weapons are the newest in the range of destructive weapons but with tremendous potential and range of utility. Applications in this domain are presently experimental in nature but fast reaching operational status.
- **Conclusions Relevant to Hybrid Warfare**
 - Soft Power is the ability to use others through co-option and attraction and its currencies are values, culture, policies and institutions.
 - In the 21st Century, diplomacy has eclipsed military as the most important instrument of statecraft, as it alone can now impair the will of an adversary to a level of extracting willingness, without resorting to kinetic actions or with limited conventional actions.
 - Power of information and media is undeniable in today’s world, as nothing can escape its glare. Thus, public messaging has now become the prime means for initiating and, thereafter, application of non-kinetic means. Narratives and counter narratives are today’s accepted norms of statecraft with the aim of moulding attitudes, behaviours and decisions of target audience, through multi-media tools in order to further own interests.
 - Non Kineticism is the root to application of Hybrid means. Its notion in prevalent environment can be understood by comprehending the trinity of non-kinetic application, in comparison with that of kinetic operations. In the classical matrix of Ends, Ways and Means, comparison between Kinetic and Non-kinetic domains is discussed as under:-
 - For both kinetic and non-kinetic applications, the end state is victory through achievement of national aim / objective but defined differently.
 - Kinetic and Non-Kinetic Ways can be differentiated as:-
 - **Kinetic Ways**. Concepts, doctrines, plans, designs, and techniques leading to application of military / kinetic power.

- **Non-Kinetic Ways.** Smart / soft power, cybernetics, diplomacy, economic / trade wars, legal amputations, tools of 4GW or 5GW, Intelligence Operations / media wars, proxies, WHAM, creative chaos, HAARP, ELF, mind control and disaster capitalisms to name a few.
- Kinetic means can be land, air and sea power. Whereas Non-Kinetic means are information, technology, culture, ideology, media, movies, pacts, legal barriers, financial and military aids, EBOs, espionage and intelligence apparatus including cybernetics and psychological tools.
- **Realisation of the New Type of Threats to Pakistan.** Presence of multiple threats and vulnerabilities provide ample ground for furthering hybrid war against Pakistan. Academia and think tanks, within the country and without have started to discuss these threats in various domains. Hence the process of realisation of Hybrid Threats to Pakistan has already begun and needs to be continued.
- **Recommendations.** Certain recommendations in various domains for a viable way forward to a stable Pakistan are as under:-
 - **Short Term Measure.**
 - **Unveil A Multilateral Intelligence-Sharing Mechanism.** Pakistan needs to immediately propose that all of Afghanistan's neighbors (Iran, the Central Asian Republics, and China) and Russia share their anti-terrorist intelligence with one another. The Kabul government, the US and NATO and India could also be invited to participate in this mechanism.
 - **Make a Case at the United Nations.** If Pakistan wants to regain control over its international image, it needs to make a case at the UN proving that terrorists are seeking shelter in Afghanistan. The purpose behind this to utilize this global platform to inform the world about its forthcoming actions (or recently conducted strikes if this step takes place after the fact).
 - **National Strategy.** Evolution of national strategy must take place side by side through evolving trends of war-fighting. Institutions need to

evolve mechanisms which will produce constant feedback and independent think-tanks are best suited for the task. Some of the more pertinent think tanks for geo-strategic and defence policy making are:-

- Applied Economics Research Centre (AERC)
- Institute of Policy Studies (IPS)
- Institute of Regional Studies (IRS)
- Institute of Strategic Studies (ISS)
- Islamabad Policy Research Institute (IPRI)
- International Growth Center (IGC)
- Pakistan Academy of Sciences
- Pakistan Institute of Developmental Economics (PIDE)
- Pakistan Institute of International Affairs (PIIA)
- Pakistan Institute of National Affairs (PINA)
- Research Society of International Law (RSIL)
- Social Policy and Development Center (SPDC)
- Sustainable Development Policy Institute
- **Clarity of terminal goals and objectives.** While formulating counter strategy one must have clarity of terminal goals and objectives which will ultimately help in designing mission, requirement of force, material and medium. Some key goals to be set against vulnerabilities identified in preceding paras are:-
 - National cohesion.
 - Political stability.
 - Strong economy.
 - De-radicalisation of masses.
 - Ethno-religious harmony.
 - Ensuring provision of justice.
- **Awareness at Gross Root Level.** A cohesive effort is needed to ensure awareness of looming hybrid threats to Pakistan at the gross root level of governmental, military and educational institutes as well as across various factions of the society. This can be done through

workshops, seminars, and inclusion of these significant subjects in syllabi.

- **Projection of Military Engagements.** In order to maintain equitable parity, there is a requirement of projecting influencing power whether it is happening or not. The projection will make up the mind of opponent or force opponent to ease out the way for safe passage. Projection must be done through effective media campaigns and stronger liaison within agencies.
- **Execute Aggressive Conventional Military Operations.** Aggressive kinetic / military operations must be conducted against the asymmetric / irregular component of such threats. That's the only possible way to use weak links within the hostile forces.
- **Employment of Special Forces.** Special Operations Forces must be used, utilizing their ability of low footprint deployment. This can enhance recognition and ultimately restoration of own conventional forces' credibility.
- **Ensuring Success of CPEC.** CPEC, though a game changer, faces serious threats from internal and external forces. There is a need to harness the potentials of CPEC and take requisite measures for its security as soon as possible by:-
 - Developing interest of regional and global player.
 - Establishing security framework for CPEC as soon as possible. Relocation and reorganization of old LEA must be done and new raisings be trained specifically for the security task.
 - Early implementation of sensitive projects and by taking all political parties on board for conflicting projects.
- **Effects of Physical Engagements / Kinetic Operations.** In today's media-dominated world it is imperative to ensure that effects of any physical engagement and conducted kinetic operations are propagated adequately.
- **Exposing Anti-Pakistan Designs Regionally and Globally.** Unless the regional and global powers and other nations are convinced of anti-Pakistan designs of our adversary, it is least likely that Pakistan comes

clear from its bad perception that has been built and fed to the society and global community. Using think tanks, research institutes, military to military cooperation and exchange programs involving the civilian populace as much as possible, Pakistan must expose any such designs as a short term goal.

- **Mid Term Measures**

- **War Fighting Concepts.** In line with the changing threat spectrum, war-fighting concepts of Pakistani Armed Forces must evolve too. Tenets of the changes required are:-
 - Evaluation of doctrines (especially SCW and related publications) with regards to hybrid threats.
 - Re-hashing of techniques and procedures at lower and higher levels. Enhancing capability of battalions and ensuring *Modular* grouping and re-grouping for the same.
 - Integration / fusion of various defence organisations within armed forces, thereby ensuring seamless intelligence sharing at all levels.
 - Reducing the space for war by aggressive mitigation of ambiguity for hostile elements.
- **Economic / Financial Reforms.** Economy has always played a pivotal role in a nation's conflict management and its credibility in the region. There is a dire need to implement tax / economic / financial reforms to elevate the status of nation's economy. Thereby supporting the defence mechanism in war against hybrid threats. Provision of transparent share of provinces and tariffs as per resources will prove to be significant in this regard. Ultimate aim must be to achieve self-reliance in economic domain.
- **Speed of Information.** Communication infrastructure and tools should allow faster transmission of information: as close to real-time as possible. A country should develop all modern and primitive modes of communication to build a *Strategic Communication Network*. A forum be formed to ensure conception and implementation in this field.

- **Strategic Economy.** Economic infrastructure should be able to defend itself against global recessions, enemies sabotage and natural disasters. Economy should ensure continuous supply of food and energy, as both will ensure sound economy in turn.
- **Technological Advancements.** Technology will likely to remain the single most important factor in evolving trends of war-fighting. Pakistan is on the right path of attaining the newest of technologies. However the pace of these advancements is slower and may hamper our response against the technology-dependent threats.
- **Long Term Measures**
 - Improvement of foreign relations is the most important long term measure for Pakistan,
 - Intelligent and smart perception management and media alliances with neighboring states will ensure added defence of Pakistan's *cognitive territories*, against subversion and coercion.
 - **Information Control.** Media policy, regulations, laws and instrument of communication needs to ensure safeguarding of national interest while being independent and unbiased. Maximum efforts in information domain must be put in as the major chunk of such wars is media warfare.
 - **Inter-Ministerial Cooperation.** A legal framework must be constituted for inter-ministerial cooperation, especially at political and expert level. There is also a need to develop governmental decisions at ministerial level. Inter-Agency Working Groups, at experts' level be created, for various issues for operations planning. Their sub-groups can serve to solve ministerial issues at lower levels.
 - **Utility of Think Tanks and Narrative Culture.** A number of think tanks (political, economic and defence / security) based in Pakistan have been under-utilised for long. Promotion of freedom of expression and investment in people becomes the urgent course of action for neutralizing the hybrid war tactics used against Pakistan. Development of quality human resource is necessary for effectively calibrating and disseminating Pakistan's perspective in international

arena where competing narratives battle for and against a nation overwhelmingly.

- **Improvement of Psycho-Social Environment.** Education, health, basic amenities, jobs, recreational facilities and some essential provisions of lives will ensure an improvement in Psycho-social environment of the country. In turn weakening the hostile narratives and filling the internal security voids within the society.
- **Specific Capabilities to Counter Hybrid War.** Specific capabilities are a hallmark of any solution against the hybrid threats / warfare discussed in preceding paras. Therefore, it is highly advisable to formulate and implement measures that create specific capabilities to counter threats of any hybrid war against Pakistan. Some of these are listed below:-
 - Counter/conduct Irregular Warfare (IW)
 - Cyber Defence
 - Information Operations (INFO OPS)
 - Strategic Communications (STRATCOM)
 - Psychological Operations (PSYOPS)
 - Civil-Military Operations (CIMIC)
 - Special Operations Forces (SOF)
 - Counterinsurgency Operations (COIN)
- **Provision of General Capabilities of Institutions.** Government needs to ensure development and provision of necessary capabilities in all domains. Police, gendarmerie, civil protection, administration, and justice to name a few can be starters. Provision of specific training, together with military components, must also be ensured concurrently.
- **Adaptable Military Power.** Military power should be strong, flexible enough to absorb and respond to developing trends in warfare. It is immaterial, whether threat is conventional or unconventional we have to respond. Rather it is suggested that 5GW threats are conventions of the day and more focus be placed on these. Following must be ensured in this regard:-
 - Modernisation of military equipment and intelligence means

- War-gaming and preparing for all possible scenarios
- Speeding up the process of Net Enabled and Net-Centric capabilities

CONCLUSION

“War is a moral contest, they are won in temples long before they are ever fought”

Sun Tzu, Art of War (___ BC)

- Exploitation of domestic fault lines (like political, economic and societal) is the main target of 5GW and hybrid warfare. The incremental approach that is followed is designed to gut a state from within. Threats of 5GW and Hybrid Warfare are very much relevant to Pakistan. The adversary is targeting Pakistan from within through extremists and terrorists as proxies for thousands cuts strategy. After the overt nuclearisation of Pakistan, any conventional war adventure will be too costly for our adversaries. Fighting Hybrid War against Pakistan under the rubric of nuclear weapons has become preferred strategy by our adversaries.

- The task fighting and effectively winning wars of narratives in the court of world opinion cannot be accomplished by diplomatic corps alone. In post-truth era where objective facts are less influential in shaping opinion compared with repetitive assertion of certain agenda points, foreign policy has become battlefield of competing narratives. Selling Pakistan’s view abroad has become increasingly difficult because of absence of effective intellectuals for disseminating Pakistan’s rationale of policies adopted. Information domain has become extremely important for effectively disseminating the narrative of the country to both domestic and foreign audiences. The questions about Pakistan’s commitment to fighting extremism and terrorism often go unanswered in academic circles. In a nutshell, we must realize that hybrid threats against Pakistan in today’s world are real and complex. Unless a correct realisation, followed by a comprehensive response materialises, developing nations like Pakistan will continue to struggle for peace, stability and prosperity.

BIBLIOGRAPHY

Books and Articles

- “*From Fourth Generation Warfare to Hybrid War*” by Colonel Steven C. Williamson, US Army War College, Carlisle Barracks, PA 17013-5050, United States Army.
- “*Countering Hybrid War: Civil Resistance As A National Defence Strategy*” Maciej Bartkowski, 12 May 2015.
- “*Countering Hybrid Warfare*”, by Deepak Induraj, December 16, 2015.
- “*Demographic Warfare – Where Guns are Replaced by People*” By Asian Warrior, June 5, 2016
- “*Clausewitz, Carl Von. On War*”, edited and translated by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976, rev.1984.
- “*The Sling and the Stone: On War in the 21st Century*”. Hammes, Thomas X. St. Paul, MN: Zenith Press, 2004. ISBN 0760324077, 9780760324073
- “*The Handbook of Fifth-generation (5GW): A Fifth Generation of War*”. Ann Arbor, MI: Nimble Books, 2010. ISBN 1934840173, 9781934840177
- “*Hezbollah on Steroids*”, Grant, Greg. DoDBuzz.com, 1 July 2009.
- “*Irregular Warfare: One Nature, Many Characters*” Gray, Colin. | Strategic Studies Quarterly, Winter 2007.
- “*Another Bloody Century: Future Warfare*” Gray, Colin, Weidenfeld and Nicolson, 2005.
- “*Understanding Modern Warfare*” Jordan, David Cambridge: Cambridge University Press, 2008. ISBN 0521700388 (ISBN13: 9780521700382)
- “*Heads We Win: The Cognitive Side of Counterinsurgency*”, Gompert, David C. RAND Counterinsurgency Study Paper 1, Arlington, VA: RAND Occasional Papers, 2007.
- “*Dark Territory: The Secret History of Cyber War*”. Kaplan, Fred M. New York: Simon & Schuster, 2016. ISBN 1476763259 (ISBN13: 9781476763255)
- “*Hybrid Wars: The 21st-Century’s New Threats To Global Peace And Security*” Sascha-Dominik Bachmann, Bournemouth University, UKa Håkan Gunneriusson Swedish Defence University

- *“Unrestricted Warfare”*, Liang, Qiao and Wang Xiangsui. Beijing: PLA Literature and Arts Publishing House, February 1999.
- *“The Changing Face of War, Into the Fourth Generation”*, Lind, William, et al. — Marine Corps Gazette, October 1989: 22-26.
- *“Future War: Non-lethal Weapons in Twenty-first-century Warfare”*. Alexander, John B. New York: St. Martin's Press, 1999. ISBN 0312267398 (ISBN13: 9780312267391)
- *“Hybrid Warfare and Challenges”*, By Frank G. Hoffman.
- *“Hybrid Wars in the Indian Subcontinent: Possibilities and Response”* Lt Col Samir Srivastava.
- *“Relevance of hybrid warfare to Pakistan”*, Muhammad Adil Silva, 25 February 2015.

Internet Sources

- THE CHANGING FACE OF WAR: Into the 5th Generation (5GW)
http://globalguerrillas.typepad.com/globalguerrillas/2006/10/the_changing_fa.html
- Defining fifth generation warfare
<http://mil-embedded.com/guest-blogs/defining-fifth-generation-warfare/>
- The Architect And Fifth Generation Warfare
http://www.thestrategist.org/archives/2006/06/the_architect_o.html
- Hybrid warfare
https://en.wikipedia.org/wiki/Hybrid_warfare
- Hybrid war – does it even exist?
<http://www.nato.int/docu/review/2015/Also-in-2015/hybrid-modern-future-warfare-russia-ukraine/EN/>
- Russia’s Hybrid War as a Byproduct of a Hybrid State
<https://warontherocks.com/2016/12/russias-hybrid-war-as-a-byproduct-of-a-hybrid-state/>
- Hybrid Warfare in the Baltics: Threats and Potential Responses
http://www.rand.org/pubs/research_reports/RR1577.html
- Hybrid Warfare: NATO's New Strategic Challenge?
<http://www.nato-pa.int/default.asp?SHORTCUT=3778>

End Notes